

IN THE SPECIFICATION:

Please change the paragraph beginning at page 45, line 23 as follows:

- (c) For each base station 122, BS_i , in the group mentioned in (b) above, create an empty list, BS_i -list, and put on this list at least the P_0 area types for the “significant” P_0 subareas crossed by the transmission path between C(A) and BS_i . Note that “significant” P_0 subareas may be defined as, for example, the P_0 subareas through which at least a minimal length of the transmission path traverses. Alternatively, such “significant” P_0 subareas may be defined as those P_0 subareas that additionally are known or expected to generate substantial multipath.

The paragraph immediately following shows all changes from the original paragraph. Please change the paragraph beginning at page 66 line 15 as follows:

Regarding FOMs 1224 using pattern recognition or associativity techniques, there are many such techniques available. For example, there are statistically based systems such as “CART” (an acronym for Classification and Regression Trees) by ANGROSS Software International Limited of Toronto, Canada that may be used for automatically ~~for~~ detecting or recognizing patterns in data that were unprovided (and likely previously unknown). Accordingly, by imposing a relatively fine mesh or grid of cells ~~of~~ on the radio coverage area, wherein each cell is entirely within a particular area type categorization such as the transmission area types (discussed in the section, “Coverage Area: Area Types And Their Determination” above), the verified location signature clusters within the cells of each area type may be analyzed for signal characteristic patterns. If such patterns are found, then they can be used to identify at least a likely area type in which a target MS is likely to be located. That is, one or more location hypotheses may be generated having target MS 140 location estimates that cover an area having the likely area type wherein the target MS 140 is located. Further note that such statistically based pattern recognition systems as “CART” include software code generators for generating expert system software embodiments for recognizing the patterns detected within a training set (e.g., the verified location signature clusters).

Please amend the paragraph commencing on page 92 line 1 as follows:

Of course, variations in the above algorithm are also within the scope of the present invention. For example, some embodiments of the most likelihood estimator 1344 may:

- (e) Perform special processing for areas designated as “poor reception” areas. For example, the most likelihood estimator 1344 may be able to impose a confidence value of zero (i.e., meaning it is unknown as to whether the target MS is in the area) on each such poor reception area regardless of the location estimate confidence values unless there is a location hypothesis from a reliable and unanticipated source. That is, the mesh cells of a poor reception area may have their confidences set to zero unless, e.g., there is a location hypothesis derived from target MS location data provided by a mobile base station 148 that: (a) is near the poor reception area, (b) able to detect that the target MS 140 is in the poor reception area, and (c) can relay target MS location data to the location center 142. In such a case, the confidence of the target MS location estimate from the MBS location hypothesis may take precedence. Thus, as disclosed, e.g., in the Summary section hereabove as well as the mobile station descriptions hereinbelow, such a target MS location estimate from a MBS 148 can be dependent on the GPS location of the MBS 148.